

AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for preparing a supported cocatalyst for olefin polymerization, which comprises first reacting
 - A) support bearing functional groups, with
 - B) triethylaluminum, thereby producing a reaction product; and subsequently reacting the reaction product with
 - C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl, C_7 - C_{40} -haloalkylaryl or an $OSiR_3^2OSiR_3^2$ group, where

R^2 are identical or different and are each hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl or C_7 - C_{40} -haloalkylaryl;

y is 1 or 2; and

x is 3 minus y.

2. (canceled).

3. (previously presented) The process as claimed in claim 1, wherein A in formula (I) is boron.
4. (previously presented) The process as claimed in claim 3, wherein R¹ in formula (I) is C₆-C₁₀-haloaryl, C₇-C₂₀-alkylaryl or C₇-C₂₀-haloalkylaryl.
5. (currently amended) A supported cocatalyst obtained by a process comprising first reacting
 - A) support bearing functional groups, with
 - B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
 - C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R¹ are identical or different and are each, independently of one another, hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl, C₇-C₄₀-haloalkylaryl or an $\text{OSiR}_3^2\text{OSiR}_3^2$ group, where

R² are identical or different and are each hydrogen, halogen, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxy, C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl;

y is 1 or 2; and

x is 3 minus y.

6. (currently amended) A process comprising preparing a catalyst system for the polymerization of olefins with a supported cocatalyst, the supported cocatalyst being prepared by

first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl, C_7 - C_{40} -haloalkylaryl or an $OSiR_3^2OSiR_3^2$ group, where

R^2 are identical or different and are each hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl or C_7 - C_{40} -haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

and then bringing the supported cocatalyst into contact with

D) at least one organic transition metal compound.

7. (currently amended) A catalyst system for the polymerization of olefins, obtained by bringing at least one supported cocatalyst obtained by a process comprising

first reacting

- A) support bearing functional groups, with
- B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with
- C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl, C_7 - C_{40} -haloalkylaryl or an $\text{OSiR}_3^2\text{OSiR}_3^2$ group, where

R^2 are identical or different and are each hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl or C_7 - C_{40} -haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

into contact with

D) at least one organic transition metal compound.

8. (previously presented) The catalyst system for the polymerization of olefins as claimed in claim 7, wherein

E) at least one organometallic compound

is additionally added in its preparation.

9. (previously presented) The catalyst system for the polymerization of olefins as claimed in claim 8 which is prepared by:

firstly preparing a catalyst solid by bringing the at least one supported cocatalyst into contact with the at least one organic transition metal compound D), then

bringing the catalyst solid into contact with the at least one organometallic compound E) in a second step, thereby forming a mixture, and then using the mixture without further work-up for the polymerization.

10. (previously presented) A process comprising polymerizing olefins with a catalyst system obtained by bringing at least one supported cocatalyst obtained by a process comprising

first reacting

A) support bearing functional groups, with

B) triethylaluminum, thereby producing a reaction product and subsequently reacting the reaction product with

C) a compound of the formula (I),



where

A is an atom of group 13 or 15 of the Periodic Table;

R^1 are identical or different and are each, independently of one another, hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl, C_7 - C_{40} -haloalkylaryl or an $OSiR_3^2$ group, where

R^2 are identical or different and are each hydrogen, halogen, C_1 - C_{20} -alkyl, C_1 - C_{20} -haloalkyl, C_1 - C_{10} -alkoxy, C_6 - C_{20} -aryl, C_6 - C_{20} -haloaryl, C_6 - C_{20} -aryloxy, C_7 - C_{40} -arylalkyl, C_7 - C_{40} -haloarylalkyl, C_7 - C_{40} -alkylaryl or C_7 - C_{40} -haloalkylaryl;

y is 1 or 2; and

x is 3 minus y

into contact with

D) at least one organic transition metal compound.